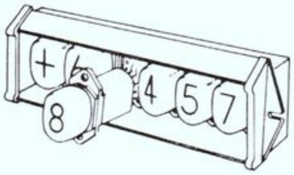
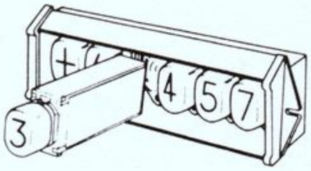
BULLETIN NO. 1020F
March 15, 1967
(Supersedes Bulletin No. 1020E)

NIXIE® TUBE ASSEMBLIES

TYPE
BEZ-XX-X
(See Ordering Information)

NIXIE® tube bezel assemblies offer the most efficient and attractive means of packaging NIXIE tubes, driver modules and sockets for multi-digit displays. These assemblies enhance the appearance of equipment, provide maximum readability and save production labor as well as electrical and mechanical design time.
Assemblies are available for use with the standard round, standard rectangular or super size NIXIE tubes. They are available in various configurations which include complete packages with mounted driver modules, colons, decimal points and tubes, or partial assemblies with mounted sockets only. Amber Polariod filters which provide maximum contrast and readability in high ambient light are standard with all assemblies. **A new bezel, the BSB series, has been added to the BEZ series.** The depth of the BSB bezel is less than that of the BEZ and has been designed specifically for use with the standard rectangular NIXIE tubes. The reduced depth of this bezel allows the tubes to be mounted closer to the Polaroid filter, thereby increasing the efficiency of a multi-digit display of standard rectangular tubes.





FINISH
Extrusion — Black Aluminate
End Caps — Light mat, black

DRIVER MODULES
Detailed specifications on tube readout drivers which can be mounted on these bezels can be found in the following literature:

BCD Decoder/Drivers without Memory — Bull. 1054, 1066, 1107, 1108, and 1113.
BCD Decoder/Drivers with Memory — Bull. 1079
Uni-Directional Counter — Bull. 1063
Bi-Directional Counter — Bull. 1062 & 1069
Transistors Drivers — Bull. 1038
Drivers with Memory — Bull. 1079

MATERIAL
Extrusion — 6063 T-5 Aluminum
End Caps — DuPont "Zytel 101" Nylon
Filter — Plastic Laminated Circular Polaroid
Amber — HACP-24 (Standard)
Red — HRCP-7 (On request)
Decimal Points (DP-1) See Page 2

Burroughs Corporation / ELECTRONIC COMPONENTS DIVISION
PLAINFIELD, NEW JERSEY 07061

DECIMAL POINTS & COLONS

Decimal points, when necessary, are mounted equidistant between tubes as shown in Figure **2**. The overall bezel dimensions given in Table 1 apply in all cases except when **only one** decimal point is used with the B-5991 (8422) standard rectangular tubes. In this case, the decimal point is installed between the numbers at their bottom portion, thereby increasing the bezel dimensions by 0.312". When more than one decimal point is used with the rectangular tubes, the bezel dimensions (in Table 1) are not increased because they are put at a level below the bottom of the numbers. This is done so that the bezel does not become excessively long as more decimal points are added. Other configurations are available on special order.

Where round tubes are used in digital clock applications, the A and B dimensions, (Fig. 1) must be increased by .312 inches per colon.

Where B-5991 rectangular tubes are used in digital clock applications, the A and B dimensions shown in Figure 1 must be increased by .450 inches per colon.

SOCKET HOLE COVERS

A plate (Figure 3) which covers the socket holes in the bezel is available for applications requiring a blank in the display or when using many displays with a different number of digits. This allows standardization by using one bezel size and eliminates back lighting coming through the unused socket holes. The part number for the plate when used with the standard rectangular tubes is CP-59, and when used with the standard round and super tubes is CP-50. As with the sockets, the plates can be mounted on the bezel or shipped separately.

ORDERING INFORMATION

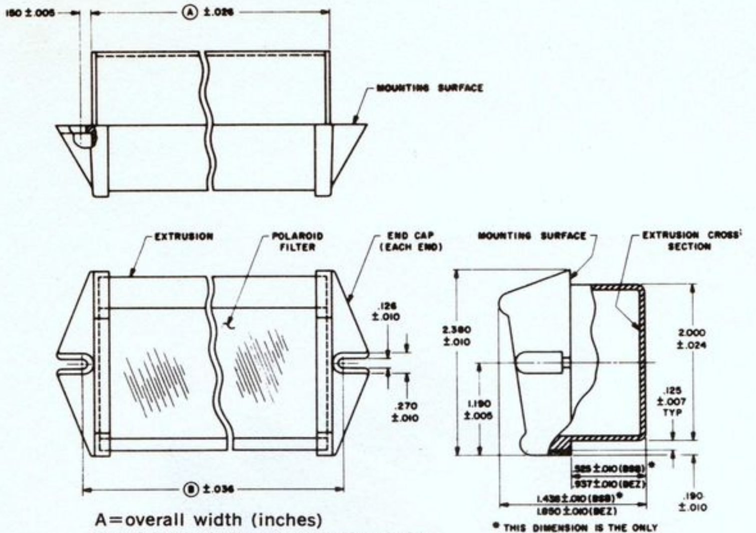
Standard bezel assemblies consist of standard round, standard rectangular, or super size sockets mounted equal distances apart. Amber polaroid is included with all bezel assemblies. Red polaroid is available at no extra charge if specified. Any configuration other than standard is considered a special and must be completely described.

Standard assemblies are identified by a five-digit alphanumeric designation; BEZ-50 for standard round, BSB-59 for standard rectangular and BEZ-60 for the super size tube. A second suffix number specifies the number of sockets to be mounted in the bezel. For example, to order a bezel with five sockets for standard rectangular tubes, the part number would be **BSB-59-5.**

When ordering a modification of standard assemblies, the tubes, drivers, decimal points and colons must be specified separately; e.g., to order a five digit bezel for standard rectangular tubes complete with BCD decoder drivers and tubes, the order should read: **BSB-59-5 with five BIP-8211P drivers and five 8422 NIXIE tubes, assembled.** Decimal points, colons and blank digits should be indicated as follows: **Decimal point between first and second digit, fourth digit blank (0.00-0).** An order for a more complicated bezel using standard rectangular tubes would read as follows: **BSB-59-8 (-0:00.0000) Digit one blank, colon between second and third digits, decimal point between fourth and fifth digits with BIP-8507P and B-5992 mounted to digit 2 and BIP-8211P w/B-5991 mounted to all other digits.** Special suffix numbers which can be used for reordering will be assigned for all modified assemblies by the Burroughs Order Department.

NOTES

1. Series resistors required for decimal point are not supplied as part of the assembly. Values required for typical supply voltages are: 115 vac — 27K, 170 vdc — 47K, 200 vdc — 62K, 250 vdc — 91K, 300 vdc — 110K.



A=overall width (inches)
B=distance between mounting holes

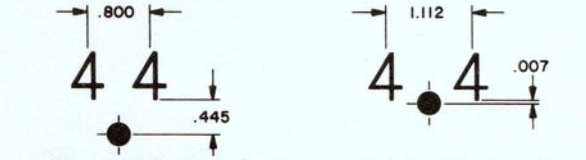
(mounting holes accept #4 screws)

* THIS DIMENSION IS THE ONLY ONE THAT DIFFERS FROM THE BEZ SERIES BEZEL. DRAWING IS TO SCALE FOR BEZ.

Figure 1. OUTLINE DRAWING (See Table 1)

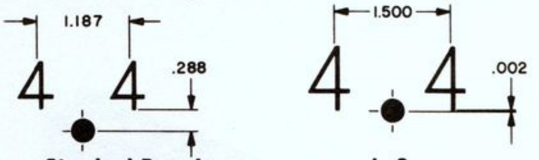
TUBE QUAN.	STANDARD BEZEL ASSEMBLIES					
	STANDARD BEZ-50		RECTANGULAR BSB-59		SUPER BEZ-60	
	A	B	A	B	A	B
2	4.125	4.425	3.325	3.625	4.125	4.425
3	5.312	5.612	4.125	4.425	5.625	5.925
4	6.500	6.800	4.925	5.225	7.125	7.425
5	7.687	7.987	5.725	6.025	8.625	8.925
6	8.875	9.175	6.525	6.825	10.125	10.425
7	10.062	10.362	7.325	7.625	11.625	11.925
8	11.250	11.550	8.125	8.425	13.125	13.425
9	12.437	12.737	8.925	9.225	14.625	14.925
10	13.625	13.925	9.725	10.025	16.125	16.425
11	14.812	15.112	10.525	10.825	17.625	17.925
12	16.000	16.300	11.325	11.625	19.125	19.425
13	17.187	17.487	12.125	12.425	20.625	20.925
14	18.375	18.675	12.925	13.225	22.125	22.425
15	19.562	19.862	13.725	14.025	23.625	23.925

Table 1. OVERALL LENGTHS FOR STANDARD BEZEL ASSEMBLIES (See Figure 1)



a. Standard Rectangular (more than 1 decimal point)

b. Standard Rectangular (one decimal point)

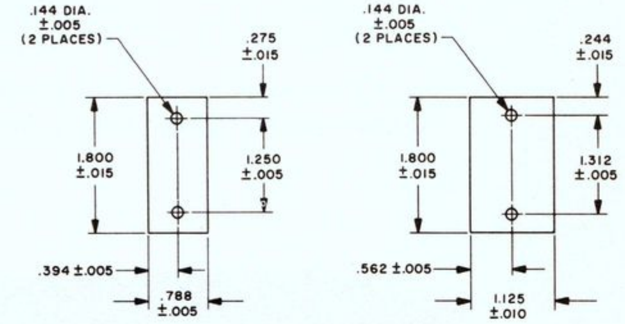


c. Standard Round (one or more decimal points)

d. Super (one or more decimal points)

NOTE:
ALL DECIMAL POINTS ARE .290 DIA. NOM.

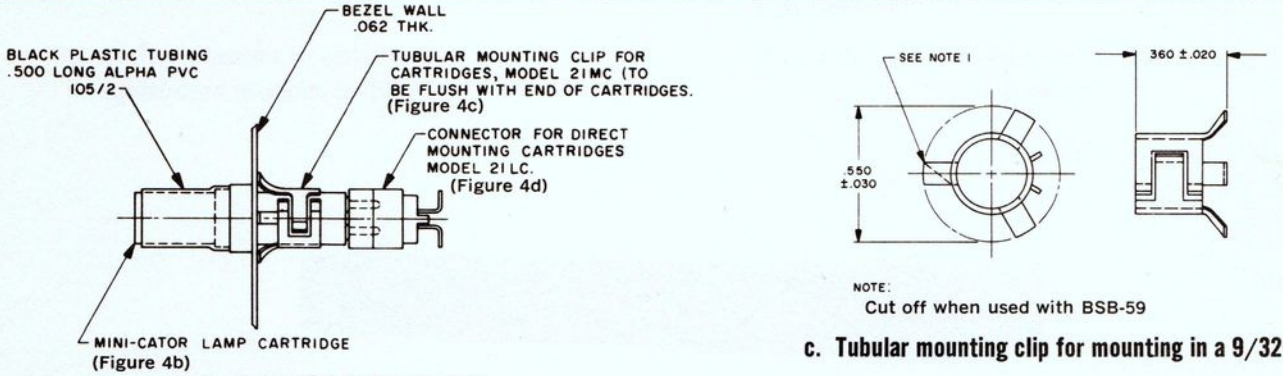
Figure 2. DECIMAL POINT LOCATION (See Page 2 and Figure 4)



a. Rectangular sockets (CP-59)

b. Standard Round and Super size sockets (CP-50)

Figure 3. SOCKET HOLE COVERS (See Page 2)

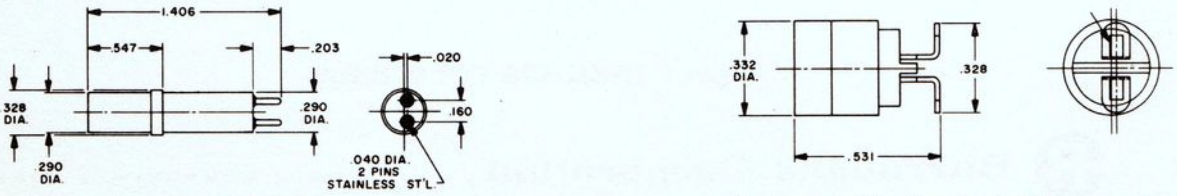


BEZEL WALL .062 THK.
BLACK PLASTIC TUBING .500 LONG ALPHA PVC 105/2
TUBULAR MOUNTING CLIP FOR CARTRIDGES, MODEL 21MC (TO BE FLUSH WITH END OF CARTRIDGES. (Figure 4c)
CONNECTOR FOR DIRECT MOUNTING CARTRIDGES MODEL 21LC. (Figure 4d)
MINI-CATOR LAMP CARTRIDGE (Figure 4b)
SEE NOTE 1
360 ±.020
.550 ±.030

a. Assembly (DP-1) (See Note 1)

NOTE:
Cut off when used with BSB-59

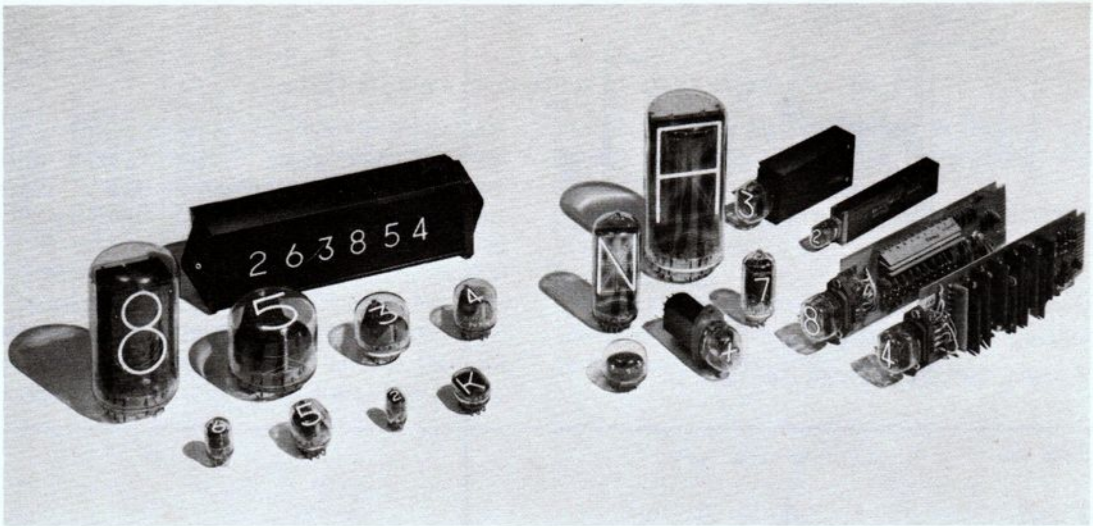
c. Tubular mounting clip for mounting in a 9/32″ hole



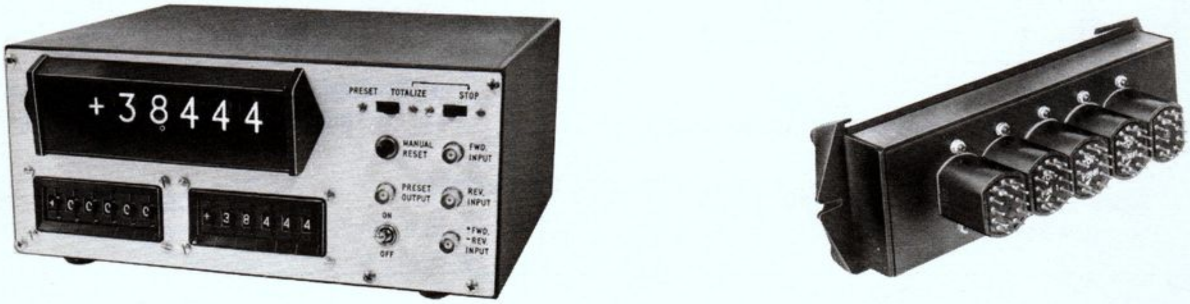
b. Lamp Sub-Assembly

d. Connector for direct mounting to panel

Figure 4. DECIMAL POINTS AND COLONS (See Page 2)



a. Complete line of NIXIE tubes including Numeric & Alphanumeric types; Driver Modules; Decade Counters, both Uni- & Bi-directional; & assemblies containing drivers and NIXIE tubes.



b. Bi-Directional Accumulator with Preset & Reset outputs.

c. Rear view of assembly showing driver module mounting.

d. Assemblies for Alphanumeric NIXIE tube systems.

Figure 5. TYPICAL NIXIE TUBE ASSEMBLIES

Burroughs Corporation / ELECTRONIC COMPONENTS DIVISION
PLAINFIELD, NEW JERSEY 07061

The information contained in this brochure does not necessarily imply a license under patents or pending applications of Burroughs Corp. or assure a freedom from patent rights of others. No warranties of any kind are either expressed or implied by reason of this publication.

Printed in U.S.A.

15M367